

OPERATING INSTRUCTIONS

FOR

BB2-1A & BB4-1A

Pro-Finish® Basket Blasters

EMPIRE

ABRASIVE EQUIPMENT CORPORATION

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INTRODUCTION

This booklet has been designed to assist you in the proper installation, operation and maintenance of your new Empire Pro-Finish System.

Read this booklet carefully and keep it handy for future reference. If at any time, you have any questions or problems regarding the operation and maintenance of your equipment, contact your Empire Distributor, who is best qualified to assist you with trained service technicians, replacement parts and tools to do the job right in the shortest possible time.

WARRANTY

Empire Abrasive Equipment Corporation ("Empire") warrants all parts and equipment in normal use and service against defects in material and workmanship to the original purchaser for fourteen (14) months after shipment, or for twelve (12) months after installation, whichever comes first.

Components that are determined by Empire to be defective within this period will be supplied for replacement or repaired at the factory at NO CHARGE.

LIMITATIONS OF WARRANTY

1. Warranty does not apply to the normal wear of nozzles, blasting hose, reclaimers, or other components exposed to or in direct contact with the blasting media.
2. Recommended maintenance schedules must be followed in order to validate the warranty.
3. Warranty is void if unauthorized service, repair or alteration has been made.
4. Warranty does not cover misapplication of products.
5. Empire neither assumes nor authorizes anyone else to assume additional liability in connection with the sale of this product.
6. Transportation costs to and from the factory, as well as installation costs, are excluded from the Warranty and are to be paid by the purchaser.
7. Returned Goods Authorization ("RGA") form must be obtained from Empire, filled out completely and accompany returned goods. Returned goods will not be accepted unless agreed to in advance by Empire.
8. Empire makes no warranty whatsoever in respect to parts not supplied by Empire.
9. Commercial parts not manufactured by Empire will be warranted by the original manufacturer.

1.0 INSTALLATION

All equipment must be level and well grounded. DO NOT place on a wooden floor, rubber mat, or on a floor subject to wet conditions. Consult a qualified electrician for proper method of electrical grounding.

1.1 DUST COLLECTOR

Your system dust collector should be installed prior to installing the Basket Blaster. Place the dust collector on a level surface behind your Basket Blaster. The dust collector is provided with leveling bolts to accommodate slight unevenness in the supporting floor. The access door and pneumatic shaker button on the dust collector should be easily accessible and the dust hose inlet should be directed toward the Basket Blaster. Allow space for free operation of the Basket Blaster door as well as access for removal of dust from the dust collector hopper. A separate 1/4" air line is supplied for connection to the dust collector shaker mechanism. Connect one end of this line to the dust collector inlet connection. Connect the other end to pipe cross outlet on the Basket Blaster pipe string, between the filter and air respirator.

1.2 CABINET

Install the Basket Blaster with sufficient space all around so that components are easily accessible and work can be easily loaded and unloaded at front. Leveling bolts are provided to accommodate slight unevenness in the supporting floor. For the BB4-1A do not position either side of the cabinet oscillator closer than 18" to a wall or other equipment. To do so could create a hazard for personnel when the oscillator moves.

With the special clamps provided connect one end of the 4" I.D. heavy duty media return hose to the adapter on the rear of the Basket Blaster hopper. Connect the other end of the 4" I.D. hose to the reclaimer inlet tube.

Using the clamps provided, connect the 6" I.D. dust hose between the outlet on the top of the cyclone reclaimer and the inlet tube on the dust collector

1.3 ELECTRICAL CONNECTIONS

Standard units operate on 230 volt three phase power. Various other electricals can be supplied as options. Pro-Finish systems should be ordered from the factory wired for the customer's electrical supply. Available combinations are listed in the current Pro-Finish Parts Book. Field conversion from one electrical combination to another requires extensive re-wiring and is expensive. Therefore, it is not advisable.

Regardless of the design voltage range your blaster requires minimum 30 amp service with minimum 14 gauge copper wire. Panel layout and electrical schematic are shown on drawings on page 12.

Once all system components are in place the following connections must be made by a competent licensed electrician following standard safety procedures and using the following general instructions and schematics.

1. Wire from the motor starter to the fan motor.
2. Connect the appropriate three phase power supply to the motor starter terminals (at the top of the magnetic starter).

Your system includes a control transformer which produces 120V/60Hz/1Ph current for the system controls, lights and D.C. motor circuitry.

Note— For hard wired equipment the National Electric Code requires that a disconnect be installed within sight of (but not more than 50 feet away from) the equipment control panel.

WARNING

To avoid accidents, install a main electrical disconnect with lock to this system. Use this disconnect to remove all electrical power to equipment prior to servicing.

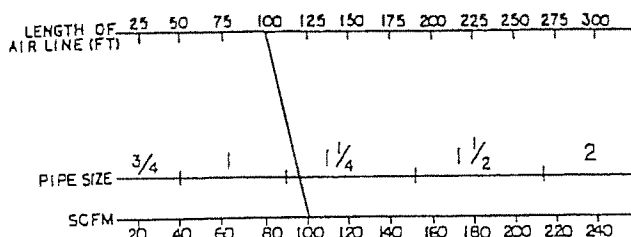
1.4 COMPRESSED AIR SUPPLY

The volume of compressed air required for efficient operation of your Basket Blaster depends on the size of nozzles being used and the desired operating pressure. 5/16" diameter nozzles with 5/32" air jets are the standard unless otherwise specified. The chart below shows minimum air requirements in SCFM for various nozzles and pressures.

AIR REQUIREMENTS		40 PSI	60 PSI	80 PSI	100 PSI
BB4-1A w/three guns (bold print)	1/4" noz w/ 1/8" jet	36 (24)	51 (34)	63 (42)	78 (52)
BB2-1A w/two guns (regular print)	5/16" noz. w/ 5/32" jet	57 (38)	81 (54)	102 (68)	126 (84)
	7/16" noz w/ 7/32" jet	114 (74)	156 (104)	198 (132)	240 (160)

If the air line from your compressor to your Basket Blaster is too small, excessive pressure drop through the line may result in inefficient blasting even though the compressor is adequately sized. Use the graph below to determine the proper air line size.

Example - Size piping run for the following:
BB4-1A using 102 SCFM located 100 feet distance from the nearest compressed air source.
From chart below - piping run to BB4-1A should be 1-1/4" pipe



IMPORTANT

For proper operation your Pro-Finish System requires dry, clean air.

Moisture or oil in your compressed air supply can contaminate abrasive and prevent it from flowing freely, resulting in inefficient blasting. Your unit is equipped with a moisture trap which will help to remove water which may condense in the connection air piping during shutdown. However, this trap is not designed to clean heavily contaminated air (a more efficient moisture trap is available as an option - contact your Empire distributor for details).

2.0 OPERATION

2.1 SELECTION OF MEDIA

Next to choosing the proper equipment, selection of the proper media is the most important factor in determining how efficient your blasting operation will be. The kind of media selected depends on the kind of job to be done. Cleaning, deburring, smoothing sharp edges, paint removal, preparation for coatings - each job has specific requirements best satisfied by specific media. The size of media is very important also. Fine media results in more impacts per second over a given area than large media. Large media gives less number of impacts, but each impact has more force. For easy blasting jobs such as the removal of light rust from steel, fine media will give faster cleaning than large media. For difficult jobs such as removal of mill scale, large media gives better results. Sometimes large and fine medias are combined for optimum results.

Your Pro-Finish Basket Blaster is designed to operate with a wide range of media. The chart below lists which kinds of media are recommended. The standard Basket Blaster system with reclaimer can use the following media sizes:

	60 Hz Operation	50 Hz Operation
Glass Beads	any size	any size
Walnut Shells	larger than	larger than
Plastic	200 MESH	200 MESH
Aluminum Oxide		
Garnet	40 - 200 MESH	60 - 200 MESH
Silicon Carbide		
Steel Grit	G-125 to G-200	Consult
Steel Shot	S-70	Factory

For medias larger than those shown please consult the factory.

Certain media such as sand and slag are not recommended for use in Pro-Finish cabinets since these media will pulverize on impact and cannot be recirculated.

Spherical media such as glass beads are used for general purpose cleaning and finishing where a satin like finish is desired with little dimensional change. Glass beads are effective when used with pressures in the 20-60 PSI range. Above 60 PSI excessive breakdown of beads may occur.

Angular aggressive media such as aluminum oxide, steel grit and garnet generally provide faster cleaning and produce a duller finish than glass beads. Aluminum oxide and steel grit are suitable for use at pressures up to 100 PSI. Garnet breaks down quickly at pressures greater than 40 PSI.

Walnut shells or plastic media are sometimes used for delicate parts or when a polished finish is desired. Pressures from 20-100 PSI may be used with these media depending on that application. Dust from organic media, such as walnut shells, is flammable, as is the dust from some plastic media. If these materials must be used it is important that the cabinet and dust collector be cleaned daily to remove any fine dust, which accumulates in hoppers, crevices, and ledges.

When changing from one type media to another it is necessary to thoroughly clean out the cabinet interior and media hoses to avoid cross contamination.

2.2 USE OF HARSH MEDIA

Your Basket Blaster is designed for production use. Heavy duty media return hose, urethane lined reclaimer, reclaimer wear plate and tungsten carbide nozzles are furnished as standard equipment. If the media to be used is glass beads, no other wear options are required. **If the use of aluminum oxide or silicon carbide is anticipated, it is highly recommended that optional boron carbide nozzles be purchased.**

2.3 MEDIA LOADING

With the cabinet switch "off", load media through the media hopper access door (do not load media directly into the cabinet hopper - this may clog the pneumatic duct). Approximately two and one-half cubic feet of media is required to fully charge the system. Operation with the system only partially charged may cause starving of guns, since when the system is operating some media is "lost" due to recirculation.

2.4 EQUIPMENT START-UP

- A. After checking all piping and hose connections to be certain they are all tightly fastened - turn on plant compressed air and open manual valve(s) controlling flow of air to system.
- B. Depress "start" button - system dust collector will start.
- C. Open cabinet door and rotate Basket using jog button until load door moves to top front position.
- D. Remove the load door on the basket and load parts. Close basket door. For maximum basket life it is important that

the basket be loaded at least 6" deep. *Operating with too few parts in the basket will result in premature basket & cabinet wear.* Maximum load of parts at one time is 3 cubic feet (max. 350 lbs) in the BB4-1A, or 1.7 cubic feet (maximum 350 lbs.) in the BB2-1A.

- E. Set the pressure regulator for the desired pressure. To prevent excessive media consumption the blast pressure should be within the following ranges:

Glass Beads	30 - 60 PS
Aluminum oxide or silicon carbide	30 - 100 PS
Garnet.....	30 - 40 PS
Steel Shot or Steel Grit	80 - 100 PS
Walnut shells or Plastic	20 - 100 PS

- F. Set the control timer for the desired time. The proper time will vary depending on the part configuration, the quantity of parts to be finished and the surface finish desired. The proper time must be determined by trial and error but for typical parts filling the basket 1/3 full the processing time will be approximately 20-40 minutes.

2.5 EQUIPMENT SHUT DOWN

When the timed cycle is complete the blast guns and oscillation will turn off automatically. The dust collector will continue to run until the "stop" button is pushed.

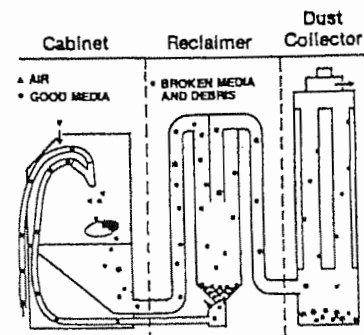
2.6 EQUIPMENT ADJUSTMENTS

2.6.1 VENTILATION FLOW ADJUSTMENT

All Pro-Finish reclaimers are "Tunable". This means that they can be adjusted to control the average size of media retained in the reclaimer. This adjustment is accomplished as described below:

- A. Secondary air inlet closed - All particles except the very finest dust will drop into the media storage hopper. Normally if these dust particles are allowed to build up in the media, blasting efficiency is decreased.
- B. Secondary air inlet opened slightly - Some particles will be carried to dust collector - adjust so that only useful media is retained.
- C. Secondary air inlet completely open - Most if not all media will be carried to dust collector.

Below is a schematic diagram of cabinet, reclaimer and dust collector showing the basic operation of the the system as well as the flow of air and media before and after blasting.



IMPORTANT

Too little secondary air entering the inlets will cause a dusty condition in the cabinet and inefficient blasting. Too much secondary air will cause useful media to be carried to the dust collector and wasted. Adjust the tuning band to meet your specific blasting requirements. When your system is new it may be necessary to periodically readjust the tuning band.

2.6.2 MEDIA FLOW

The flow of media to suction blast guns is controlled by the amount of air which enters through the inlet port in the media regulator. The amount of air entering is controlled by how far the blast hose is inserted within the abrasive regulator. For normal operation, all but 1/4" of the inlet port is blocked by the blast hose. With fine media the 1/4" dimension may be varied slightly to give uniform flow.

Note that it can easily be determined if media is flowing properly by looking through the media regulator air inlet while the system is operating.

2.6.3 GUN ADJUSTMENT

Adjustment of guns is normally not critical for proper operation. The tumbling action of parts within the basket is such that proper coverage of parts can usually be obtained with almost any gun orientation. However, for most efficient operation, guns should be angled about 20° toward the back of the cabinet. As the basket rotates parts tend to mass toward the back side, thus if the guns are angled slightly in this direction they will be aimed at the greatest mass of parts. This will help to give most efficient blasting as well as maximum basket and or cabinet life.

On the BB4-1A the oscillation stroke of the three guns is fixed. The guns at either end should be angled slightly toward the ends of the basket, not so much as to cause wear to the basket ends but enough to assure coverage of parts tumbling near the basket ends.

3.0 MAINTENANCE**3.1 DAILY MAINTENANCE**

- A. Check condition of media. If media is contaminated or broken down into dust, clean out the system and reload (see Section 2.3). Adjust tuning band if dusty condition is found (see Section 2.6-1).
- B. Inspect all media carrying hoses for wear by feeling along the hose length for soft spots. If soft spots are found the hoses should be replaced. Safety pin must be in place to prevent quick coupling disconnection.

- C. Shake dust collector bags after every 4 hours of operation. Dust is removed from the bags by depressing the bag-shake button 10 to 15 times with the dust collector fan off.
- D. Remove accumulated dust from the dust collector hopper.
- E. Check light bulbs and gauntlets.
- F. Remove debris from reclaim screen.
- G. Open the drain on the manual moisture separator in the cabinet piping and drain accumulated moisture. Close drain.
- H. Open the drain valve on the the air compressor receiver tank to drain any water which may have accumulated.
- I. Check media level. For most efficient operation media level should not decrease to less than 1/2 of recommended full volume.

3.2 WEEKLY MAINTENANCE

- A. Repeat recommended daily maintenance procedures.
- B. Check nozzle for wear. When nozzle is worn 1/8" oversize, replace. A drill bit can be used to check nozzle size.
- C. Check air jet for wear. This is easily accomplished by loosening the set screw in the side of the gun body and removing jet. If the air jet shows wear, rotate it 90° from current position, reinsert in gun and retighten set screw.

IMPORTANT If an air jet is allowed to wear completely through, premature wear of mixing head body and nozzle will occur.

- D. Check nozzle adapter and mixing head body for wear - replace if necessary.
- E. Check window gasket for leaks. Replace if necessary.
- F. Check your spare parts inventory for replacement items.
- G. Loosen the hose clamp on the 4" conveying hose and rotate the hose 90° (this will allow the hose to wear evenly on both sides).

3.3 OTHER MAINTENANCE

- A. Every 160 hours of operation grease the three shaft bearings and the one idler arm assembly with any standard multi-purpose grease. The one bearing on the left side is exposed. The three remaining lube points can be reached by opening the guard on the right side of the machine.
- B. Every 160 hours of operation check the oil level in the gear reducer by removing the high level plug. Add gear oil as necessary to maintain the oil level at the proper level.

3.4 STORAGE OR TEMPORARY NON-USE

If the Basket Blaster is not to be used for a period of several days or more, empty all media from the system. This can easily be done by releasing the latches on the bottom of the quick dump storage hopper. An optional dump cart is available which can be wheeled under the storage hopper to catch and store the discarded media.

4.0 TROUBLESHOOTING

4.1 DIAGNOSIS & REMEDY

— See pages 8 and 9

4.2 "ON-OFF" INTERLOCK SOLENOID

This solenoid is mounted outside the back of the control panel and serves two functions:

- A. It assures that the blast guns will only operate if the dust collector is "on".
- B. It provides an air signal to turn on the guns and start the oscillation.

Operation of the this solenoid can be checked as follows:

- A. With the dust collector "on", turn timer knob "on" then "off". Each time the timer is turned off the hiss of escaping air should be heard at the solenoid.
- B. If no escaping air is heard, check to make sure the timer contacts are closing properly. With the timer "on" there should be continuity between terminals 3 and 6 (on the top right terminal strip, not the motor controller terminal strip). If contacts do not close when timer is "on" - replace timer.
- C. If the timer has been checked and found to be OK then problem is a faulty solenoid - replace.

4.3 OSCILLATION (BB4-1A only)

Your BB4-1A utilizes all pneumatic circuitry to oscillate the three blast guns. The schematic for the oscillation circuit is shown on drawing 5.4 attached. In the event that a component on the oscillator malfunctions it would be normal for the other cabinet functions to operate properly. If this is the case the troubleshooting procedure below can be followed:

- A. Check to be sure that oscillation mechanism is not jammed inside the basket or elsewhere (with the cylinder clevis pin removed this mechanism should move freely).
- B. Check that the flow controls are open (located on the cylinder ports - see item 5 on drawing 5.4). Turn screws counter-clockwise to open.
- C. Check operation of sensor fittings (see item 5 on drawing 5.4) mounted on each end of the cylinder. As the cylinder rod reaches the end of its stroke the sensor fitting at that end should shift and send an air signal to the 4-way valve causing it to shift. To check the sensor fittings follow the procedure described below.

- 1. *If the cylinder rod is extended* remove the top 1/4' tubing run on the sensor fitting farthest away from the cabinet (each sensor fitting has two tubes - the tube can be removed by depressing the small brass collar with the tip of a screwdriver and at the same time pulling out on the tubing).

If the cylinder rod is retracted remove the top 1/4' tubing run on the sensor fitting closest to the cabinet

With the dust collector "on", air should be flowing from the open sensor port.

- 2. If air is flowing, the problem is a faulty 4-way valve (item 9 on drawing). Disassemble and clean or replace. Note that the 4-way valve is the lapped spool type and does not contain rubber seals or O-rings.
- 3. If air does not flow from the open sensor port then the problem is a faulty sensor fitting. Note that these fittings cannot be disassembled for repair, however, **they are subjected to excessive moisture or oil they will cease to work.** In this case once the fitting is dried out it will again work properly. However, for reliable operation the cause of the air contamination must be eliminated.

4.4 BASKET DRIVE

The basket rotates on two powered shafts each with two 5" diameter rubber coated wheels. One shaft is directly connected to a gear reducer which is powered by a 1/2 HP D.C. motor. The motor is powered by an adjustable speed D.C. motor controller mounted in the cabinet control panel.

If the basket will not rotate but other cabinet functions (blast guns, lights and oscillation) are OK, then follow the troubleshooting procedure below.

- A. Make sure both drive shafts are turning. If rear shaft turns but front shaft does not, then remove the guard on cabinet right side and adjust idler sprocket.
- B. Check for blown 10 amp fuse in front of control panel. If fuse is blown, correct the cause of the overload and replace the fuse.
- C. If fuse is intact check D.C. motor controller as follows:
 - 1. Input to controller terminals 1 and 2 should measure 110volts to 125 volts.
 - 2. During normal operation output of D.C. controller (terminals 5 and 6 on controller terminal strip) should be about 90 volts. If output is not 90 volts, disconnect motor leads (wires 10 and 11 connected to terminals 5 and 6 on motor controller terminal strip) and measure resistance across motor coil. If motor coil is open, motor is faulty. Repair or replace. If resistance of approximately 7 ohms is measured, then motor is OK and controller is faulty.

4.1 DIAGNOSIS AND REMEDY

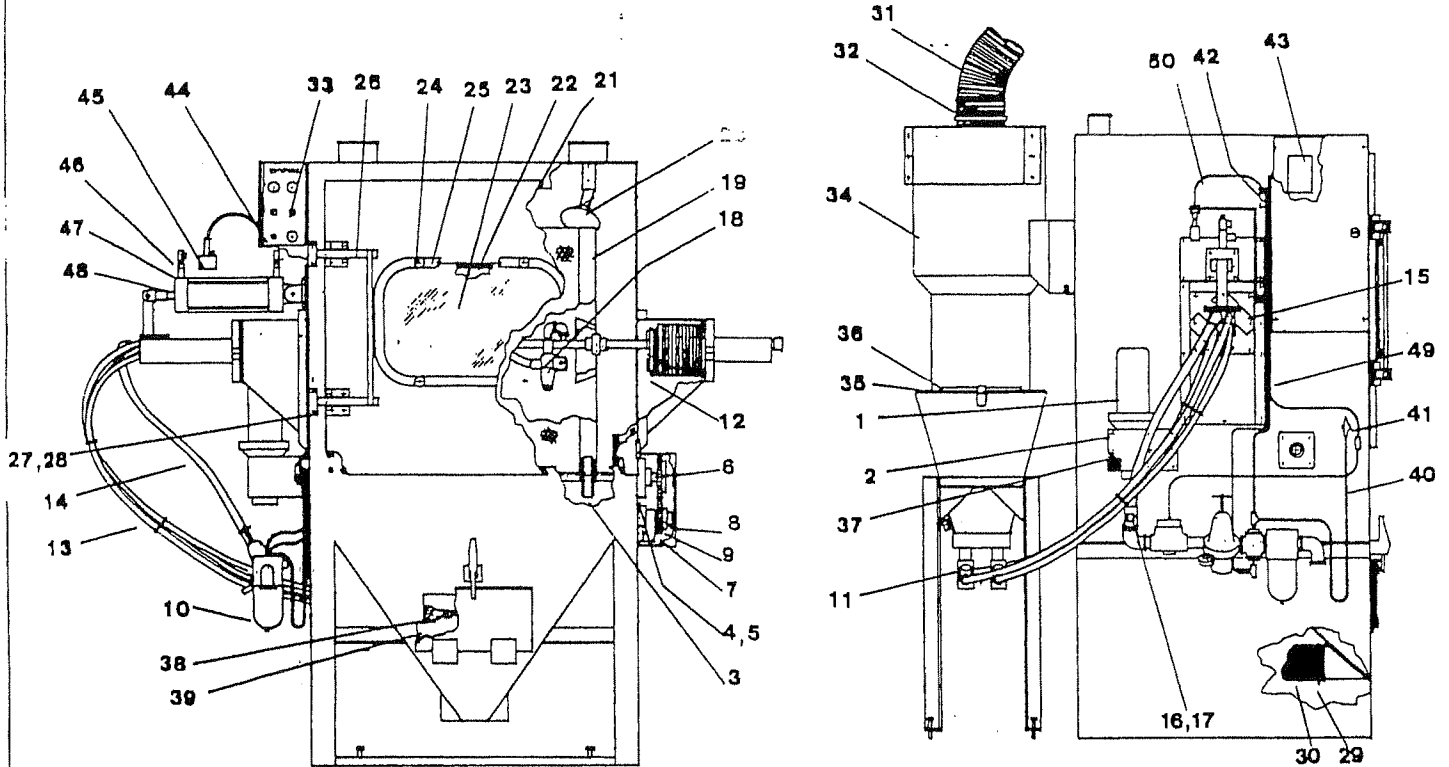
TROUBLE	PROBABLE CAUSE	REMEDY
Good media carried to Dust Collector	New Bags	Continue use until bag "cake" forms (approx 8 hrs.)
	Tuning band open too far	Adjust tuning band — see Section 2.6.1
	Insufficient media in suction hopper allowing secondary air to enter	Add media to maintain recommended media level
	Media too fine	Use coarser media — see Section 2.1
Dust escaping to work area from dust collector	Hole in dust bag(s) or loose bag(s) in dust collector	Replace leaking bag(s) refasten bag(s)
Poor Ventilation during blasting	Clogged dust bags	Shake dust collector bags
	"Blinded" dust bags (reduced air flow due to age of bags)	Replace the bags—Over a period of years dust may penetrate the fibers of the bags to the extent that air flow through the bags is restricted even when the bags are shaken regularly
	Fan rotation backward	Reverse fan wiring
	Media has high dust content	Replace media—Then adjust tuning band as shown in Section 2.6.1
	Return hose blocked	Remove return hose and inspect for obstruction
	Cabinet air inlet plugged	Blow filter clean with blowoff hose
	Dust collector door leaks air	Tighten door, replace gasket if necessary
	Operating air pressure too high	Decrease pressure to within recommended range
Poor production rate (continued on next page)	Low air pressure	Increase pressure within the range specified
	Nozzles too small	Install larger nozzles and air jets—The smaller these are the less work is done in a given time
	Improper media	See Section 2.1
	Low media level	Add media to maintain recommended level

4.1 DIAGNOSIS AND REMEDY

TROUBLE	PROBABLE CAUSE	REMEDY
Poor production rate (continued from previous page)	Parts to be blasted are oily or wet	Parts to be processed must be absolutely dry and free of any oil, grease etc.
	Media has high dust content	Remove old media and replace—Blasting media breaks down and must be changed or added to on a regular basis
Air flow, but intermittent or no media flow	Low media level	Add media to maintain recommended level
	Operating air pressure too low	Maintain air pressure within the recommended range
	Clogged nozzle	Disassemble and clean nozzle
	Damp media	Replace media—If media will form ball in palm of hand, it is too damp to flow properly. Air compressor is discharging moisture or work pieces damp or oily
	Improper jet/nozzle combination	Nozzle orifice size must be at least twice the air jet orifice size. 1/8" dia. air jet requires at least 1/4" dia. nozzle
	Blast hose improperly installed	Adjust blast hose — see Section 2.6.2
No air or media flow	Compressed air line closed	Open all air valves from compressor
	Door not tightly closed	Close door
	Regulator adjusted to zero	Adjust regulator—See Section 2.1
	Faulty interlock solenoid	To diagnose—See Section 4.2
Blast guns work but oscillation does not	Faulty component in oscillation	To diagnose—See Section 4.3
Basket will not rotate	Blown fuse	Correct the cause of the blown fuse then replace the 10 SMP fuse at front of control panel
	Faulty D.C. motor or D.C. motor control	To diagnose—See Section 4.4

5.0 REPLACEMENT PARTS AND RECOMMENDED SPARE PARTS

DRAWING 5.1 BB4-1A BASKET BLASTER PARTS



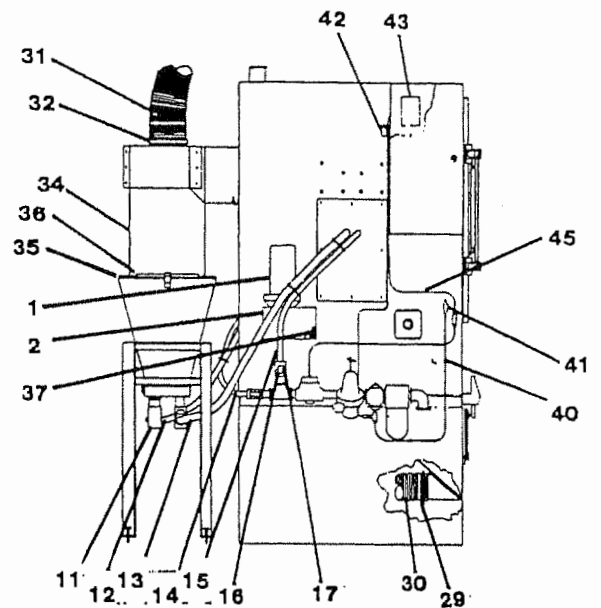
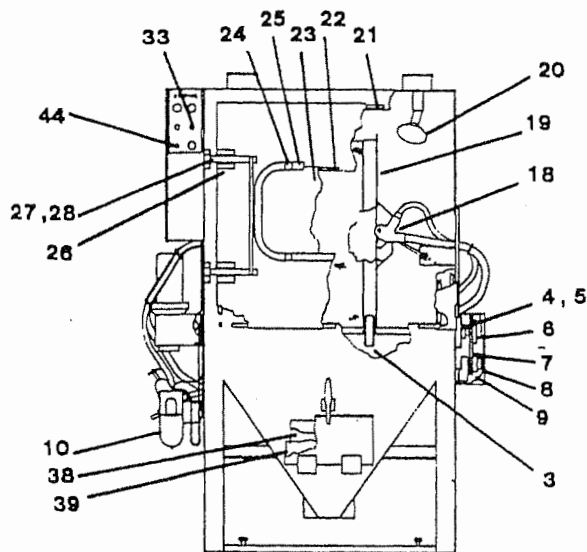
Part Number Description

- (1) 549561 Motor
- (2) 570661 Gear Reducer
- (3) 506871 Wheel
- (4) 570101 Bearing
- (5) 510081 Felt Seal
- (6) 510091 Sprocket
- (7) 570771 Chain
- (8) 570603 Idler Shaft
- (9) 570611 Idler Sprocket
- (10) 140485 Piping String
- 517271 Air Filter, 1"
- 517251 Pressure Regulator, 1"
- 518401 Repair Kit for 517251
- 517042 Air Valve, 1"
- 510511 Safety Pin
- 550212 Air Gauge
- 518041 Air Filter, 1/2" NPT (Before 8-89)
- (11) 290156 Media Regulator Assembly
- (12) 520551 Hose Clamp, 6"
- (13) 522601 Media Hose
- (14) 523051 Air Hose
- (15) 766831 Bearing (Oscillation)
- (16) 510511 Safety Pin
- (17) 505222 Quick Coupling, 1/2"
- (18) — Media Guns (See page 14)
- (19) 510651 Basket Assembly (Uncoated)
- 509171 Basket Assembly (PVC Coated)
- 767141 Basket, 1/8" dia. perforations
- (20) 532701 Spotlight
- 532711 Light Fixture

Part Number Description

- (21) 525901 Door Gasket, 1" x 1"
- 525911 Door Gasket, 1" x 1 1/2"
- (22) 524451 Window Gasket
- (23) 510401 Window
- (24) 510461 Knob
- (25) 760291 Window Frame
- (26) 509371 Latch
- (27) 509381 Fitting Plate
- (28) 751242 Keeper
- (29) 522953 Hose Clamp, 4"
- (30) 516161 Media Hose, 4" ID
- (31) 515611 Dust Hose, 6" ID
- (32) 520551 Hose Clamp, 6"
- (33) 531041 Timer
- (34) 140483 Coated Reclaimer Assembly, 600 CFM
- (35) 524371 Gasket, 15" dia.
- (36) 526161 Gasket, 1/4 x 1/4 x 53
- (37) 525821 Gasket (Gear Reducer)
- (38) 766991 Chute
- (39) 525841 Gasket (Parts Door)
- (40) 521441 Hose (Dust-Off Gun)
- (41) 509821 Dust Off Gun
- (42) 518191 Valve
- (43) 535271 Motor Control (Before 9-89)
- 535003 Motor Control (After 8-89)
- (44) 532281 Fuse (10 amp)
- (45) 518581 Valve (Oscillation)
- (46) 518571 Valve (Flow Control)
- (47) 518561 Sensor
- (48) 509221 Air Cylinder
- (49) 523021 Poly tubing, 1/4" x 7'
- (50) 523041 Poly tubing, 3/8" x 4'

DRAWING 5.2 BB2-1A BASKET BLASTER PARTS



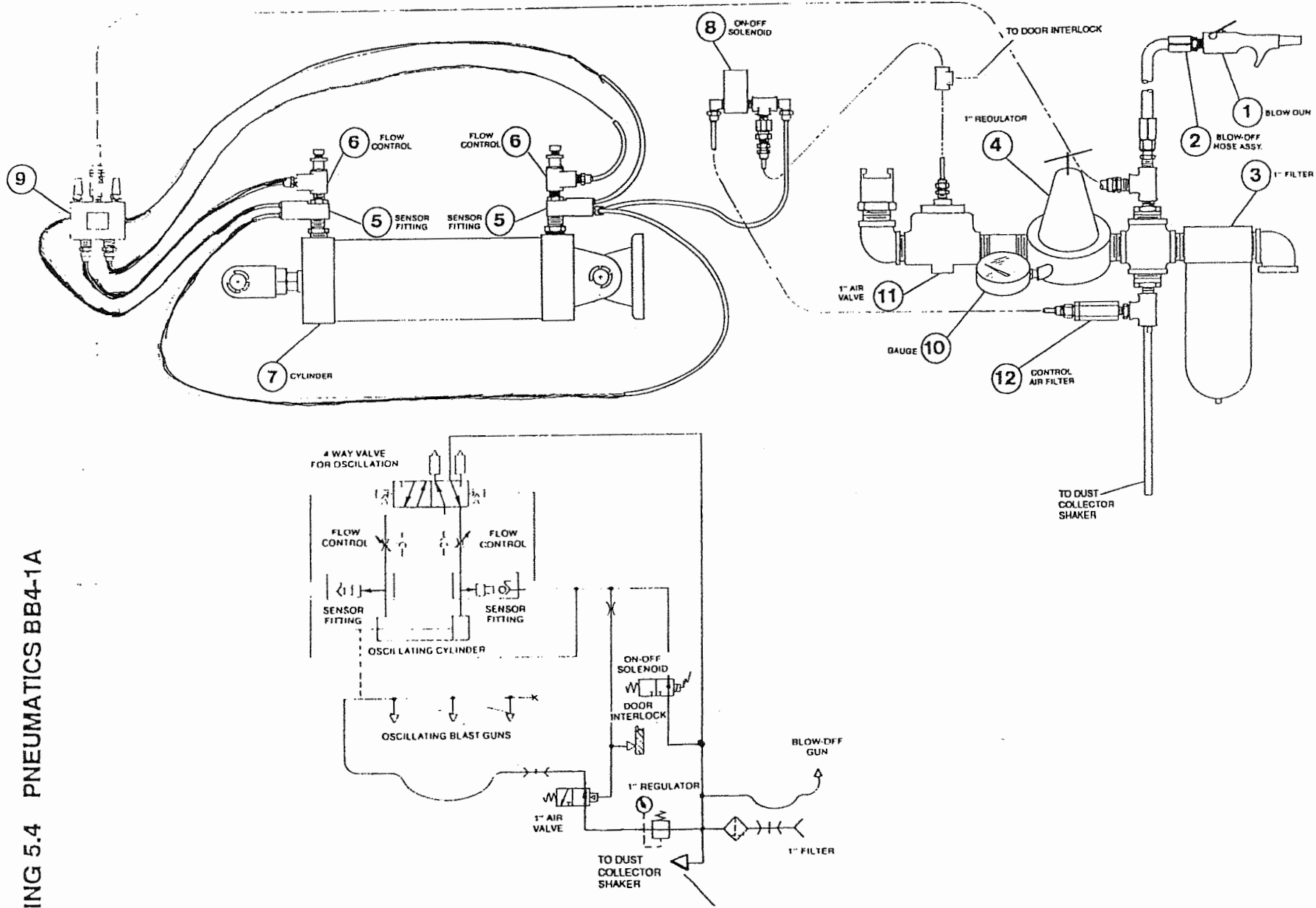
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- 517251 Pressure Regulator, 1"
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- 550212 Air Gauge
- 518041 Air Filter, 1/8" NPT (Before 8-89)
- (11) 290156 Media Regulator Assembly
- (12) 520551 Hose Clamp, 6"
- (13) 522581 Media Hose
- (14) 523051 Air Hose
- (15) 766831 Bearing (Oscillation)
- (16) 510511 Safety Pin
- (17) 505222 Quick Coupling, 1/2"
- (18) — Media Guns (See page 14)
- (19) 767131 Basket Assembly (Uncoated)
- 509281 Basket Assembly (PVC Coated)
- 767151 Basket, 1/8" dia. perforated

Part Number Description

- (20) 532701 Spotlight
- 532711 Light Fixture
- (21) 525901 Door Gasket, 1" x 1"
- 525911 Door Gasket, 1" x 1 1/2"
- (22) 524451 Window Gasket
- (23) 510401 Window
- (24) 510461 Knob
- (25) 760291 Window Frame
- (26) 509371 Latch
- (27) 509381 Fitting Plate
- (28) 751242 Keeper
- (29) 522953 Hose Clamp, 4"
- (30) 516161 Media Hose, 4" ID
- (31) 515611 Dust Hose, 6" ID
- (32) 520551 Hose Clamp, 6"
- (33) 531041 Timer
- (34) 109002 Coated Reclaimer Assembly, 600 CFM
- (35) 524371 Gasket, 15" dia.
- (36) 526161 Gasket, 1/4 x 3/4 x 53
- (37) 525821 Gasket (Gear Reducer)
- (38) 766991 Chute
- (39) 525841 Gasket (Parts Door)
- (40) 521441 Hose (Dust-Off Gun)
- (41) 509821 Dust Off Gun
- (42) 518191 Valve
- (43) 535271 Motor Control (Before 9-89)
- 535003 Motor Control (After 8-89)
- (44) 532281 Fuse (10 amp)
- (45) 523021 Poly tubing, 1/4" x 7'

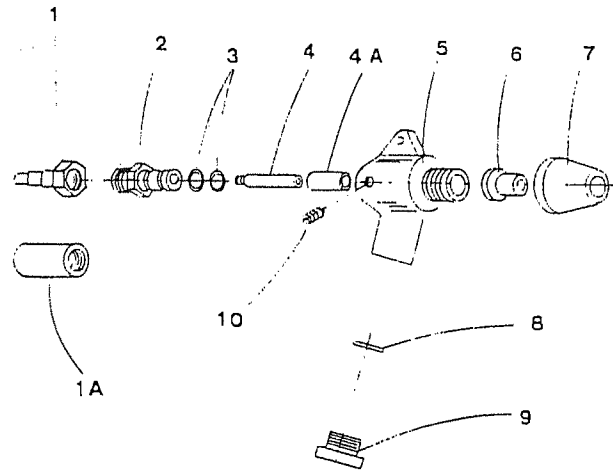
DRAWING 5.4 PNEUMATICS BB4-1A



DRAWING 5.5 MH-2 SHORT HANDLE

MH-2 SHORT HANDLE

Part Number	Description
505571	Gun with 5/16" Di-Carb Nozzle
505581	Gun with 7/16" Di-Carb Nozzle
505601	Gun with 5/16" Boron Nozzle
505611	Gun with 7/16" Boron Nozzle
505541	Gun with 5/16" Ceramic Nozzle*
505551	Gun with 7/16" Ceramic Nozzle
(1) 520402	Barbed Fitting (BB2-1A only)
(1A) 544862	Pipe Coupling, 1/2" NPT (BB4-1A only)
(2) 505621	Connector
(3) 523912	"O" Ring
(4) 507391	Air Jet, 3/32"
505661	Air Jet, 1/8"
505671	Air Jet, 5/32"
505691	Air Jet, 7/32"
(4A) 526171	Rubber Sleeve only
(5) 753561	Gun Body (Short)
(6) —	Nozzles
(7) 505641	Plastic Nozzle Adapter (standard)
504931	Steel Nozzle Adapter
(8) 523881	"O" Ring
(9) 520081	Hose Clamp Nut
(10) 551702	Set Screw, 1/4"-20 x 3/8"



* Supplied with system unless otherwise specified.